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|-------------------------------|-----------------|--------------|
| <b>Notice of Allowability</b> | Application No. | Applicant(s) |
|                               | 09/887,345      | HEMMI ET AL. |
|                               | Examiner        | Art Unit     |
|                               | Brian P Mruk    | 1751         |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to March 5, 2004.
- The allowed claim(s) is/are 1,3,5,7,9,11,13,14,16,17,19 and 21-24.
- The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
- Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - All
  - Some\*
  - None
 of the:
  - Certified copies of the priority documents have been received.
  - Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
- DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- Notice of References Cited (PTO-892)
- Notice of Draftsperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 3-5-04
- Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
- Notice of Informal Patent Application (PTO-152)
- Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
- Examiner's Amendment/Comment
- Examiner's Statement of Reasons for Allowance
- Other \_\_\_\_\_.

*Brian P. Mruk*  
 Brian P Mruk  
 Primary Examiner  
 Art Unit: 1751

## REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

Yamaguchi et al, U.S. Patent No. 6,444,771, discloses an acrylic acid-maleic acid copolymer that has a weight-average molecular weight of 2,000-50,000, and a calcium ion scavengability of 400 mg CaCO<sub>3</sub> per gram or more (see abstract and col. 3, lines 5-13). It is further taught by Yamaguchi et al that suitable polymerization initiators include hydrogen peroxide and ammonium persulfate (see col. 7, lines 16-30), that the addition of the hydrogen peroxide is completed at least 10 minutes earlier than the addition of the monomer component (see col. 7, lines 31-40), and that the polymers are used in detergent compositions (see col. 8, lines 54-67). However, patentee differs from applicant in that Yamaguchi et al does not teach or suggest in general a production process for a low-molecular weight (meth)acrylic acid (salt)-based polymer that contains 100 to 95 mol % of a monoethylenically unsaturated monocarboxylic acid (salt) monomer that is added to the reaction system by drop-wise addition, as required by applicant in the instant claims. Furthermore, applicant's 1.132 Declaration has shown that the copolymers in Examples 1-1 to 1-5 of Yamaguchi et al do not exhibit a clay dispersibility in high-hardness water of 0.47 to 0.60, as required in the instant claims.

Accordingly, the claims viewed as a whole would not have been obvious to one of ordinary skill in the art at the time of the invention after viewing the prior art of record.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Mruk whose telephone number is (571) 272-1321. The examiner can normally be reached on Monday-Thursday from 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta, can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

BPM

Brian Mruk  
May 6, 2004

*Brian P. Mruk*  
Brian P. Mruk  
Primary Examiner  
Tech Center 1700